position. These claims thus specify that the claimed system is a drop hammer that mechanically lifts the ram member during each cycle. The use of a mechanical lifting assembly precludes the use of an ignition lift system as would be used by a diesel hammer. In particular, the engagement of the lifting assembly with the ram member as recited in amended claims 1, 13, and 18 would, practically speaking, be impossible if the ram member was being raised by the ignition of compressed fuel. The mechanical and ignition lifting system would interfere with each other.

The Applicant respectfully submits that claims 1, 13, and 18 clearly recite a drop hammer system and not a diesel hammer system as disclosed in the Kurylko reference. The Applicant respectfully submits that claims 1, 13, and 18 are in condition for allowance and that claims 4-6, 8, 9, 11, 12, 15, 19, and 21, which further define claims 1, 13, or 18, are thus also in condition for allowance.

Submitted herewith is a document (entitled Exhibit A - Listing of All Claims and Amendments (09-23-2005)) containing a listing of the claims as currently presented. The Listing attached herewith contains the text of each pending claim, along with any amendments made hereby (illustrated using strikethrough and underlining) and the status of each pending claim.

Given the foregoing, the Applicant respectfully submits that currently pending claims 1, 4-6, 8, 9, 11, 12, 13, 15, 18, 19, and 21 are in condition for allowance, and such allowance is respectfully requested. If there is any matter which could be expedited by consultation with the Applicant's attorney, such would be welcome. The Applicant's attorney can normally be reached at the telephone number below.

Signed at Bellingham, County of Whatcom, State of Washington this 23rd day of September, 2005.

Respectfully submitted,

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CERTIFICATE OF MAILING
37 C.F.R. §1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Signature: Susie Hubka

Print Name: Susie Hubka

Date: September 23, 2005

EXHIBIT A

LISTING OF ALL CLAIMS AND AMENDMENTS

(09-23-2005)

Amendments to the Claims

Claim 1 (currently amended)

1. A drop hammer for driving a pile comprising:

a housing member defining a housing chamber and a vent port arranged between the lower and upper positions, where the vent port

defines a preload position, and

allows ambient air to flow into and out of the housing chamber under predetermined conditions;

a ram member supported within the housing chamber for movement relative to the housing member between an upper position and a lower position;

a helmet member supported by the housing member for movement relative to the housing member between a rest position and an impact position; and

a lifting ~~system for moving~~ assembly that mechanically engages the ram member to lift the ram member from the lower position to the upper position during each cycle; whereby

when the lifting system raises the ram member above the preload position, ambient air flows into the housing chamber;

when the ram member falls below the preload position, ambient air within a preload chamber portion of the housing chamber compresses to apply a preload force on the inner portion of the helmet member; and

when the ram member moves into the lower position, the ram member impacts the helmet member to force the helmet member from the rest position to the impact position, thereby driving the pile.

Claims 2 and 3 (previously canceled)

Claim 4 (currently amended)

4. A drop hammer as recited in ~~claim 2~~claim 1, in which fluid is prevented from flowing through the vent port when the ram member is below the preload position.

Claim 5 (original)

5. A drop hammer as recited in claim 4, further comprising seal system for sealing the preload chamber portion of the housing chamber when the ram member is below the preload position.

Claim 6 (original)

6. A drop hammer as recited in claim 5, in which:

the ram member defines a ram side wall;

the housing member defines a housing interior wall;

the seal system comprises a ram seal for inhibiting fluid flow between the ram side wall and the housing interior wall.

Claim 7 (previously canceled)

Claim 8 (original)

8. A drop hammer as recited in claim 5, further comprising:

a helmet member supported by the housing member for movement relative to the housing member between a rest position and an impact position; wherein

the impact of the ram member is transmitted to the pile through the helmet member;

the helmet member extends through a helmet opening formed in the housing member; and

the seal system comprises a helmet seal for inhibiting fluid flow between the helmet member and the housing member through the helmet opening.

Claim 9 (original)

9. A drop hammer as recited in claim 8, in which:

the ram member defines a ram side wall;

the housing member defines a housing interior wall;

the seal system comprises a ram seal for inhibiting fluid flow between the ram side wall and the housing interior wall.

Claim 10 (previously canceled)

Claim 11 (original)

11. A drop hammer as recited in claim 1, further comprising a clamp assembly for securing the drop hammer to the pile.

Claim 12 (previously amended)

12. A drop hammer as recited in claim 1, further comprising a clamp assembly for securing the helmet member to the pile.

Claim 13 (currently amended)

13. A method of driving a pile comprising:

providing a housing member defining a housing chamber;

forming a vent port between the lower and upper positions, where the vent port

defines a preload position, and

allows ambient air to flow into and out of the housing chamber under predetermined conditions;

supporting a helmet member from the housing member for movement relative to the housing member between a rest position and an impact position;

supporting a ram member within the housing chamber for movement relative to the housing member between an upper position and a lower position;

connecting the helmet member to the pile;

providing a lifting assembly for mechanically engaging the ram member to raise ~~raising~~ the ram member from the lower position into the upper position;

disengaging the lifting assembly from the ram member to allow ~~allowing~~ the ram member to fall from the upper position to the lower position such that the impact of the ram member to force the helmet member from the rest position to the impact position, thereby driving the pile;

while the ram member is above a preload position, allowing ambient air to flow out of a preload chamber portion of the housing chamber defined by the housing member; and

while the ram member is below the preload position, substantially preventing ambient air from flowing out of the preload chamber portion of the housing chamber, where ambient air within the preload chamber portion of the housing chamber compresses as the ram member moves from the preload position to the lower position to apply a preload force on the helmet member prior to impact of the ram member on the helmet member.

Claim 14 (previously canceled)

Claim 15 (original)

15. A method as recited in claim 13, further comprising the step of sealing the preload chamber portion of the housing chamber when the ram member is below the preload position.

Claim 16 and 17 (previously canceled)

Claim 18 (currently amended)

18. A drop hammer for driving a pile comprising:

a housing member defining a housing chamber and a vent port between the lower and upper positions;

a ram member supported within the housing chamber for movement relative to the housing member between an upper position and a lower position; and

a helmet member supported by the housing member for movement relative to the housing member between a rest position and an impact position; and

a lifting assembly for mechanically engaging the ram member to raise ~~system for raising~~ the ram member from the lower position to the upper position during each cycle; whereby

as the ram member falls from the upper position to a preload position defined by the vent port, ambient ~~airexits~~air exits the housing chamber through the vent port;

when the ram member falls below the preload position, ambient air within a preload chamber portion of the housing chamber below the vent port compresses as the ram member moves into the lower position to apply a preload force on the helmet member; and

when the ram member moves into the lower position, the impact of the ram member on the helmet member drives the pile.

Claim 19 (original)

19. A drop hammer as recited in claim 18, further comprising seal system for sealing the preload chamber portion of the housing chamber when the ram member is below the preload position.

Claim 20 (previously canceled)

Claim 21 (original)

21. A drop hammer as recited in claim 18, further comprising a clamp assembly for securing the helmet member to the pile.